SUPERFUND PROGRAM
FACT SHEET

EPA REGION V

SKINNER LANDFILL
WEST CHESTER, OHIO

MARCH 1986

INTRODUCTION

In March 1986, U.S. EPA will begin a long-term investigation and study of the Skinner Landfill site. The study will attempt to identify the type and extent of contamination at the site.

This fact sheet provides an overview of the Superfund Program, background information on the Skinner Landfill, and a summary of the work plan for the Skinner Landfill site. The work plan is available for public review at the information repository located at the Union Township Library.

OVERVIEW OF THE SUPERFUND PROGRAM

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, more commonly known as "Superfund"). This act authorizes EPA to investigate and respond to releases or threatened releases of hazardous substances that may endanger public health or welfare or the environment. Money for Superfund has been provided through taxes on petroleum and certain other chemicals, general revenues and collections from parties legally responsible for sites. Congress is currently working toward reauthorizing funding for the Superfund program which expired in October 1985. In the meantime, work will continue as long as possible at those Superfund sites, such as Skinner Landfill, where U.S. EPA has already obligated funds.

Under the Superfund program there are two basic forms of response to hazardous sites:

- Removal Actions are taken when a prompt response is required to prevent immediate and significant harm (e.g., fire, explosion, or highly contaminated drinking water).

- Remedial Response Actions are taken when longer-term actions are required to address the problem at a site. The initial phases of a remedial response action are the remedial investigation and feasibility study to determine the type and extent of contamination and to evaluate measures for addressing this contamination. The process involved in a long-term Superfund action is described in Figure 1.

BACKGROUND ON THE SKINNER LANDFILL SITE

The Skinner Landfill site occupies seventy-eight acres of land within the town of West Chester in Union Township, Butler County, Ohio. The site consists of wooded, hilly terrain bordered on the east by railroad tracks and on the west by the Cincinnati-Dayton Road. Several single family homes and the Union Elementary School are located near the site. (See site map).

The Skinner Landfill property has been owned by The Skinner family since the 1930s. During that time, portions of the property have been used for disposal of general municipal wastes. In 1963, the Butler County Health Department approved a permit application for Skinner to operate a sanitary landfill on his property; however, a subsequent application from Skinner to install and operate an incinerator at the site was not approved.

From 1963 to 1976, the Butler County Health Department, and Southwestern Ohio Air Pollution Control Agency received periodic complaints from nearby residents of heavy smoke coming from the site. On April 18, 1976 a fire at the site sparked immediate attention from local and state officials. Ohio EPA conducted investigations of the site and found that industrial and chemical wastes had been disposed of at the site. Information on the exact type and quantity of wastes disposed at the site are limited. Investigations by Ohio EPA and U.S. EPA indicate that the wastes include pesticides, heavy metals and chlorinated solvents. The site was listed on the U.S. EPA Superfund National Priorities List (NPL) in December 1982.

REMEDIAL INVESTIGATION AND FEASIBILITY STUDY (RI/FS)

In March 1986, U.S. EPA will begin the field investigation for the long-term study, referred to as a remedial investigation and feasibility study (RI/FS), at the Skinner Landfill. The first part, the remedial investigation (RI), is designed to collect and analyze the data necessary to define the problems at the site and to evaluate possible solutions. During the RI for the Skinner Landfill site, which will be conducted in two phases, U.S. EPA will install monitoring wells on- and off-site, and test the surface water, soil, and some residential drinking water wells to determine the extent and movement of contamination. The first phase of work is intended to identify problems that potentially pose the greatest risk, for example, drinking water or surface water contamination. The second phase, to better characterize contamination at the buried lagoon and areas adjacent to it, will be conducted when additional funds are available. Table 1 lists the major activities involved during the RI.

The second part of the process is the feasibility study (FS), which will begin after the RI work is completed. Based upon the findings of the RI, several alternatives for addressing the contamination at the site will be proposed. During the FS, these alternatives will be evaluated on the basis of cost and effectiveness in protecting public health, welfare, and the environment. From the findings of the FS, U.S. EPA will choose a plan that is both environmentally sound and cost-effective. Local officials and the community will have an opportunity to review and comment on the proposed remedial alternatives before a final decision is made.

The work plan for RI/FS activities scheduled for the Skinner Landfill site is available for public review at the information respository located at the Union Township Library. U.S. EPA will plan additional fact sheets and public meetings when the results of the RI and FS are available.

AVAILABLE INFORMATION

Individuals desiring additional information about the RI/FS process or the specific activities proposed for the Skinner Landfill site are encouraged to review the various U.S. EPA documents that have been prepared for the site. Copies of the applicable laws, the work plan for activities at the Skinner Landfill site, and the community relations plan prepared for the site are available at:

Union Township Library
7900 Cox Road
West Chester, Ohio 65069
(513) 777-3131
Hours: 10:00 a.m. - 8:30 p.m. (M-Th.)
10:00 a.m. - 5:30 p.m. (Fri.)
10:00 a.m. - 3:00 p.m. (Sat.)

The following U.S. EPA personnel may be contacted if you have further questions.

Margaret McCue
Community Relations Coordinator
Office of Public Affairs
(312) 886-4359

Gene Wong
Remedial Project Manager
Emergency and Remedial Response Branch
(312) 353-6341

U.S. EPA - REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

Toll free number
800-621-8431
Hours: 9:00 a.m. - 4:30 p.m. (Central Time)

MAILING LIST ADDITIONS

To be placed on the mailing list to receive information on the Skinner Landfill site, please fill out and mail this form to:

Margaret McCue
Office of Public Affairs
U.S. EPA - Region 5
230 South Dearborn Street
Chicago, Illinois 60604

Name: _____

Address: _____

_____

Affiliation: _____

Phone: _____

FIGURE 1
THE SUPERFUND PROCESS

This figure provides a simplified explanation of how a Superfund response, like the one planned for Skinner Landfill, works. The figure shows graphically the steps of the Superfund response.

After a site is initially **discovered**, it is **(1) inspected**, usually by the State. The site is then **(2) ranked** using a system that takes into account:

- Possible health risk to the human population;
- Potential hazards (e.g., direct contact, inhalation, fire and/or explosion) from substances at the site;
- Potential for the substances at the site to contaminate drinking water supplies: and
- Potential for the substances at the site to pollute or harm the environment.

If the site's potential problems are serious enough, it will be listed on the National Priorities List (NPL), a roster of the nation's worst hazardous waste sites. Every site on the NPL qualifies for federal Superfund money.

Next, U.S. EPA conducts a **(3) remedial investigation** (RI). The RI assesses what kinds of contaminants are present and the degree of contamination, and characterizes potential risks to the community. Following the investigation, U.S. EPA does a **(4) feasibility study**, to examine the feasibility of various alternatives, including a no-action alternative. If an alternative is chosen that requires action, a **(5) specific plan** is then selected and designed. Once these planning activities are finished, the actual remedial action begins.

The time required to complete each of these five steps varies with every site. In general, a remedial investigation/feasibility study (RI/FS) takes from one to two years. Designing the final plan may take six months. The final plan of remedial action may vary from no further action to an engineered cleanup taking up to several years.

Ongoing activities during an RI/FS include:

- **Continuous monitoring.** If a site becomes an imminent threat to public health or the environment during the normal course of an RI/FS, U.S. EPA may conduct an emergency removal action to remove or control the threat.
- **Public information activities** to keep citizen and officials informed. These activities occur throughout the course of the remedial process. Public comment periods are held at certain key points in the remedial process. U.S. EPA considers public comments in making decisions about remedial activities at a site.

- **Search for potentially responsible parties (PRPs).** Having initially identified a site as an NPL site, U.S. EPA undertakes a thorough investigation to identify parties who may be responsible for the waste contamination problem. Often legally complicated and time-consuming, this search for PRPs can and frequently does continue throughout the RI/FS process. Once identified, PRPs are asked to participate in the remedial action. If they refuse, they may face various legal actions.

TABLE 1
REMEDIAL INVESTIGATION ACTIVITIES PLANNED FOR THE SKINNER LANDFILL SITE

These are some of the objectives and activities that are planned for the remedial investigation at the Skinner Landfill site.

Phase 1 objectives:

- To determine the nature and extent of ground water and surface water contamination present at or migrating from the site.
- To assess the quality of the water supplies for the residential areas surrounding the site.

Task	Description	Schedule
Geophysical Survey	A geophysical survey examines the geological features in the area and identifies anomalies that may indicate the location of buried metallic materials or suspected pathways through which contaminants may migrate from the site.	Spring 1986
Survey of Residential Wells	EPA will identify residential wells within a half-mile radius from the site. Residents will be contacted, as appropriate, for permission to sample their wells.	Spring 1986
Hydrogeologic Investigation	A hydrogeologic investigation determines the depth to ground water, and the direction and rate of ground water flow, which is important to assess the likely extent of contamination, and to identify remedial alternatives. The hydrogeologic investigation at Skinner will include drilling monitoring wells and taking samples of soil, surface water, and sediment.	Spring 1986
Monitoring Wells	EPA will install twenty-three monitoring wells on and around the Landfill to gain information on the direction of ground water flow, and the presence and movement of ground water contaminants.	Spring 1986
Sampling and analysis of residential wells, surface water, sediment, and leachate.	EPA will take sixteen surface water and sediment samples (from creeks and ponds), ten residential well samples, three leachate samples to determine the extent of ground water contamination at the site.	Spring 1986

Preparation of a Phase I RI Report	After these samples have been analyzed, U.S. EPA contractors will interpret the data collected during the first phase of the RI and begin preparing the Phase I RI report.	Summer/Fall 1986

Phase 2 objective:

- To evaluate and characterize the nature and extent of contamination in the buried lagoon and the areas adjacent to the lagoon.

Task	Description	Schedule*
Additional Ground Water Sampling	EPA plans to install seven additional monitoring wells to conduct ground water sampling.	
Soil and Waste Borings	Soil and waste borings from 5 locations in the buried lagoon area will be taken to determine the nature and extent of contamination.	
Identification of Hazardous Materials	Six trenches or test pits will be excavated on the areas adjacent to the buried lagoon to locate drums and other containers. The contained material will be analyzed to characterize the buried wastes.	
Surface Soil Sampling	Samples of soil residue will be taken at 10 on-site locations to help determine the nature and extent of wastes spilled on the site.	
Drum Residue Sampling	20 samples taken from surface drums and tanks will be analyzed to determine the type of wastes present at the site.	
Preparation of a Phase II RI report	After these samples have been analyzed, U.S. EPA contractors will interpret the data collected during the second phase of the RI and begin preparing the Phase II RI report.	

* The schedule for Phase II of the RI will depend upon Congress reauthorizing funding for Superfund or interim funds becoming available before reauthorization.

GLOSSARY

Aquifer	A layer of rock or soil below the ground surface that can supply usable quantities of ground water to wells and springs. Aquifers can be a source of drinking water and provide water for other uses as well.
Chlorinated Solvents	Any of a variety of organic compounds containing chlorine that are used to dissolve other substances. Most chlorinated solvents can be toxic to varying degrees.
Geophysical Survey	A study of existing surface and subsurface geologic conditions using laboratory and field techniques.
Ground Water	The water beneath the earth's surface that flows through soil and rock openings.
Heavy Metals	Metals including lead, chromium, and cadmium that are toxic at relatively low concentrations.
Hydrologeologic Study	A study to examine the nature and distribution of aquifers in a geologic system. One purpose of a hydrogeologic study is to identify the direction and rate of ground water flow within the aquifers.
Monitoring Wells	Wells installed in the ground to various depths that are used to collect samples to evaluate ground water quality over time.
National Priorities List	U.S. EPA's list of the top priority hazardous waste sites that are eligible for federal money under Superfund.
Potentially Responsible Parties (PRPs)	Organizations or individuals identified as potentially responsible for releases of hazardous substances. Such parties may include generations, transporters, storers, and disposers of hazardous waste, as well as site owners or operators.
Remedial Investigation and Feasibility Study (RI/FS)	A two-part study of a Superfund site which must be completed before the remedial action begins. The first part is the remedial investigation (RI), which studies the nature and extent of the problem. The second part is the feasibility study (FS), which identifies and evaluates alternative remedial actions at a site.
Sediment	Materials that settle to the bottom of a stream, creek, lake, or other body of water.

Soil Borings	Technique used for soil testing that involves taking samples at various depths to study the extent of soil contamination.
Surface Water	Streams, lakes, ponds, rivers, or any other body of water above the ground.